

ABSTRACT OF THE DISCLOSURE

A high emission intensity group-III nitride semiconductor light-emitting device obtained by eliminating crystal lattice mismatch with substrate crystal and using a gallium nitride phosphide-based light emitting structure having excellent
5 crystallinity. A gallium nitride phosphide-based multilayer light-emitting structure is formed on a substrate via a boron phosphide (BP)-based buffer layer. The boron phosphide-based buffer layer is preferably grown at a low temperature and rendered amorphous so as to eliminate the lattice mismatch with the substrate crystal. After the amorphous buffer layer is formed, it is gradually
10 converted into a crystalline layer to fabricate a light-emitting device while keeping the lattice match with the gallium nitride phosphide-based light-emitting part.